

CLAIMS

1. Process for the production of pressure sensitive adhesive materials or sealing materials having a defined cross-sectional geometry and three-dimensional structure, especially in the form of rolled or continuous materials, the said process comprising the following steps:

- (a) preparing a polymerizable mass (5);
- (b) applying this mass to an abhesive support (1, 2, 3, 6) in web form which, in longitudinal direction, has one or more depressions (30) having a predetermined cross-sectional contour, or filling said mass into one or more contour-imparting, abhesive hollow bodies (11) which have a predetermined cross-sectional contour;
- (c) feeding the mass to a curing unit (7) for curing the polymerizable mass (5).

2. Process according to claim 1, characterized in that the said mass is polymerizable by radiation.

3. Process according to claim 1 or 2, characterized in that the polymerizable mass contains at least one compound from the group of the acrylates and methacrylates, preferably a mixture of at least two compounds from the group comprising acrylates and methacrylates.

4. Process according to any one of the preceding claims, characterized in that the polymerizable mass prepared in step (a) is a polymer syrup.

5. Process according to any one of the preceding claims, characterized in that during the preparation of the polymerizable mass, one or more photoinitiators is/are added, and in that an irradiation unit, or a plurality of such units, is used as the curing unit.

6. Process according to claim 5, characterized in that an irradiation unit is used which has one or more UV lamps.

7. Process according to claim 5, characterized in that an irradiation unit is used which has one or more daylight lamps.

8. Process according to claim 5, characterized in that an irradiation unit is used which has one or more electron beam sources.

9. Process according to claim 5, characterized in that an irradiation unit is used which has a combination of at least two different radiation sources, selected from the group comprising UV lamps, daylight lamps and electron beam sources.

10. Process according to any one of the preceding claims, characterized in that a continuous band or belt (6) is used as the adhesive support in web form.

11. Process according to claim 10, characterized in that the belt (6) has one or more depressions or/and protrusions, the profile of which corresponds to the desired final contour of the pressure sensitive adhesive product or of the sealing material.

12. Process according to claim 10 or 11, characterized in that the materials thus produced are subsequently processed to rolls or coils by means of a wind-up unit (8).

13. Process according to claims 1 to 9, characterized in that as the contour-imparting hollow body/bodies (11), a tubular, fillable material is used which is adhesive or is rendered adhesive on its interior side.

14. Pressure sensitive adhesive materials or sealing materials which have a three-dimensional structure and a defined cross-sectional contour.

15. Materials according to claim 14, characterized in that they have a round, circular, semi-circular, oval, elliptic, triangular, quadrangular, polygonal or irregular cross-sectional contour.

16. Materials according to claim 14 or 15, characterized in that they are present as rolled or continuous material, especially in the form of strings, strands or strips.

17. Materials according to any one of claims 14 to 16, characterized in that they can be produced by polymerisation of (meth)acrylates.

18. Materials according to any one of claims 14 to 17, characterized in that they are produced according to any one of the processes according to claims 1 to 12.

19. Use of the pressure sensitive adhesive materials according to claims 14 to 18 for the permanent or releasable adhesive bonding of objects.

20. Use of sealing materials according to any one of claims 14 to 18 for sealing of joints or flanged joints or panes.